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**(54) PRODUCTION OF EXPANDABLE  
THERMOPLASTIC RESIN PARTICLE**

**(57) Abstract:**

**PURPOSE:** To produce the particle containing a foaming agent uniformly dispersed therein, excellent in uniformity of the expanded cells, surface smoothness, fusion bonding property, etc., and useful as a heat insulator, etc., by melt kneading a thermoplastic resin, a foaming agent and a specific organic material, subsequently extruding the kneaded material into a liquid having a specific temperature and a specific pressure, cutting it and cooling the resultant particles.

**CONSTITUTION:** This particle is produced by melt kneading (A) a thermoplastic resin such as a styrene-based resin, (B) a foaming agent such as butane

or pentane, (C) an organic composition (e.g. methanol or acetone) having OH or CO and 30 to 80 molecular weight, subsequently extruding the resultant melt kneaded material through a discharge hole of a die head into a heated and pressurized liquid heated and pressurized up to a temperature-pressure where the component (B) does not generate foams, instantly cutting it and cooling the resultant particle to  $\leq$  the foaming temperature under the ordinary pressure. In addition, the amount of used component (C) is preferably 0.1 to 10wt.% and the heated and pressurized liquid is preferably in a state of a temperature of  $\leq$  the glass transition point of the component (A) and  $\approx 40^{\circ}\text{C}$  and a pressure of 2 to 20kg/cm<sup>2</sup>.

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